

Application Ser. No.:10/512,010

Title: A DEVICE FOR CLEANING THE TEATS OF AN ANIMAL AND A MILKING STALL INCLUDING THE DEVICE

Response to Office Action dated: January 18, 2008

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Remarks

This amendment is submitted in response to the Office Action dated January 18, 2008. Independent claims 1 and 31 have been amended, and claim 5 has been cancelled. Claims 1, 2, 4, 7-11, 23-26 and 29-31 remain in this application.

In the office action of August 15, 2007, the Examiner stated that claim 31 was allowed, and that claims 1, 2, 4, 5, 7-11, 23-26, 29 and 30 would be allowed if rewritten to overcome the rejection under 35 U.S.C. §112, 2nd paragraph. This was done in applicants' submission of November 14, 2007. However, in the Office Action of January 18, 2008, the Examiner reversed herself, and now maintained that all of the claims were obvious to one of ordinary skill in the art over the references previously developed, with the addition of U.S. Patent No. 5,586,518 to Carrano. Applicants respectfully submit that the claims as previously presented were not obvious, and that there is nothing newly discovered in the Padman '053 patent and/or Guo 2002/0185071, nor any of the other references to suggest otherwise.

The Guo publication teaches a single teat cleaning apparatus 14 which includes a fitting 26 which receives a first hose 16 which delivers cleaning fluid under pressure and a second hose 18 connected to a negative pressure source for draining the cleaning fluid from the apparatus 14. The apparatus includes a motor 50 which rotationally drives brush housing 32 which in turn rotates bristle sets 44, 46 and 48.

Notably, Guo does not disclose or suggest a plurality of teat cleaning cups, but rather one single apparatus intended to be used prior to milking of an animal. As a consequence, Guo is not concerned with providing a plurality of conduit members or a conduit assembly. More specifically, Guo includes no teaching of a first conduit member and second conduit members each having supply conduits and discharge conduits connected together. Guo includes no teaching of any conduit assembly connecting the second conduit members to the first conduit members. Rather, Guo is concerned only with the teat cleaning apparatus at the teat-cleaning cup, and not in any way the

manner in which conduits could be managed and connected in order to permit the use of plural teat-cleaning cups. To emphasize this difference, Claims 1 and 31 have now been amended to include in greater detail the conduit assembly as having a connection member which connects each second conduit member to the first conduit member.

Furthermore, Guo's device includes motor 50 for rotating the bristles. This suggests that it would be difficult and unwieldy to try and combine several teat cleaning devices, each with wires and hoses, to a conduit assembly and central arrangement, and the operation of several motors and their respective movements would make attachment and simultaneous operation of several teat cleaning devices to different teats even more difficult.

The other primary reference to Padman is concerned with a milking machine. Padman's milking equipment includes four standard milking teatcups 11 which are connected in the normal manner to a milking claw 12 which is in turn connected by rubber tubes or hoses 13 and 14 to a vacuum line 16 and a milk line 22. Padman, it is to be understood, was concerned with a milking take-off arrangement where teat cups may be removed from the animal. Padman does not teach anything, nor is it concerned in any way with the cleaning of the teats of an animal. Padman also does not provide any information about the combination of a first conduit member for supplying cleaning liquid and discharging waste liquid and a plurality of second conduit members which supplying cleaning liquid and providing for discharging waste liquid. Note that Padman includes the conventional vacuum line 16 and a milk line 22 connected to respective hoses. The vacuum line 16, as is conventional, provides vacuum (typically pulsating vacuum) under negative pressure for providing a pulsating movement to the teat cups 11 via the rubber hose 13, while milking line 22, connected to the rubber hose 14, operates under vacuum to extract the milk from the teat cups and deliver it to a remote location. From the foregoing, it can be appreciated that Padman teaches nothing about supplying cleaning liquid, as it operates under vacuum as to both the vacuum line 16 and the milking line 22.

While Padman teaches the milking apparatus of claim 1, claim 1 calls for a milking machine having a number of teatcups, with the teat cleaning device being separate and fluidically remote from the milking machine. There is nothing one skilled in the art would glean from Padman which in any way remotely suggests the provision of a teat cleaning device, or how it might be combined with the Guo publication to provide for a supply of cleaning fluid and discharge of waste liquid to a plurality of teat-cleaning cups.

In addition, both claims 1 and 31 as now amended call for a conduit assembly which includes a connection member which connects each second conduit member to the first conduit member. In Guo, such a conduit assembly is totally unnecessary and superfluous -- only single hoses for the supply of liquid and the discharge of waste are shown or needed. Because each first and second conduit member includes both a supply conduit and a discharge conduit, which require fluidic separation and separate connections to ensure that the sources are not intermixed, Padman cannot be seen to include any teaching, suggestion or motivation for its hypothetical combination with Guo. The two devices are incompatible with one another and perform separate functions, as reflected by the call in claim 1 for separate and fluidically remote devices. Only through the use of hindsight gained by applicant's disclosure would one skilled in the art seek to combine their teachings directed to separate modalities of the milking process. This is reinforced by the complete absence in either reference to any effort to combine milking with teat cleaning in a single device.

Applicants thus respectfully traverse the assertion that the present invention as set forth in claims 1 and 31 is a modification which is obvious, readily yielding predictable results. In any mechanical invention, it is possible with the use of hindsight to reconstruct almost any device from known components once one is supplied with the inventive concept and structure. Here, the hypothetical combination of Guo and Padman is nothing more than a selection of different devices with different functions, and a reconstruction and modification of those devices based solely on applicants' teachings. One skilled in the art, provided with Guo and Padman, would see nothing but a conventional milking arrangement with a take-off device and a sequential operation of a single teat

motorized cleaning device. One skilled in the art would not be led, by those teachings, to the apparatus for cleaning multiple teats of an animal which employs a first conduit member both supplying cleaning fluid and discharging waste through a conduit assembly and a plurality of second conduits. More particularly, the claimed conduit assembly including the connection member for the first and second conduit members is not disclosed or suggested, nor is it a predictable modification of either the Guo and/or Padman references.

Applicants would also note that claim 9 calls for each second conduit to be relatively rigid. This limitation is not obvious in view of any teachings of the cited art. Nothing in these references teaches or suggests that the second conduit members are to be relatively rigid for permitting the second conduit assembly and associated teat cleaning cup to extend in an upward direction. Neither Padman nor Guo provides any basis for hypotheticating that members 11 and 12 of Padman are relatively rigid. If this were so, they would not be arranged in opposite directions, essentially in a horizontal orientation, as shown in Fig. 1.

The Van der Lely EP 0207572 reference shows a combination milking machine and teat-cleaning device, but here the waste liquid is discharged through the milk line. Clearly, this device, cited for the configuration of the lip of the teat cleaning device, is contrary to the teachings of the present invention which require that the milking machine be fluidically separate from the teat cleaning device.

Applicants also submit that neither Guo and/or Carrano 5,586,518 show any "grip member." The reference character 50 of Guo is an electric motor. This motor does not function as a grip member. To conclude otherwise simply reads this limitation out of the claim.

For the foregoing reasons, applicants respectfully submit that the present invention as set forth in the claims would not be obvious to one of ordinary skill in the art from any single reference or hypothetical combination or modification thereof. Accordingly, applicants respectfully submit that the present application is now in condition for allowance and such is courteously requested.

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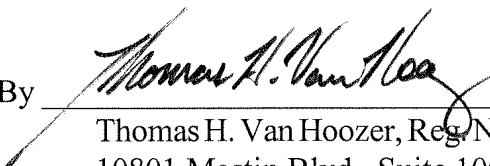
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Should any issues remain which may be resolved by a telephone conference, they may be addressed to the undersigned at 1-800-445-3460. Any additional fee necessitated by this submission, including the requested one month extension of time to respond, may be charged to Deposit Account 19-0522.

Respectfully submitted,

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